

Appl. No. 09/905,274
Atty. Docket No. 8609
Amdt. Dated April 6, 2004
Reply to Office Action of January 6, 2004
Customer No. 27752

REMARKS

The restriction requirement with respect to Claims 14-25 required in Paper No. 5 dated August 22, 2003, has been withdrawn by the Examiner. Claim 1 has been amended to pushably engage a web substrate through a pleating apparatus. Claim 20 has been amended to pushably transport the scored web relative to a first and second series of interleaved converging elongate spaced protuberances. Support for the amendments to both Claims 1 and 20 is found on page 10, lines 1-2, of the Specification, as originally filed. No new matter has been entered in amended Claims 1 and 20.

Therefore, Claims 1-27 are pending in the instant Application and are presented for the Examiner's review and reconsideration in light of the above Amendments and the following comments.

Rejection Under 35 U.S.C. §102

Claims 1, 2, 4-6, 8, 13-19, 21-23, and 25-27 have been rejected under 35 U.S.C. §102(b) over Levers, et al., U.S. Patent No. 3,800,676. Applicants respectfully traverse this rejection for the following reasons:

1. Applicants' amended Claim 1 claims a web pleating apparatus comprising, *inter alia*, a first series of **elongate** spaced protuberances **converging** in the cross-machine direction, a second series of **elongate** spaced protuberances **converging** in the cross-machine direction, and that the first and second series of protuberances **interleave** in the Z-direction.
2. Applicants' Claim 14 provides a method for forming a pleatable web comprising, *inter alia*, transporting a scored web relative to a first series and second series of cross-machine direction **converging elongate** spaced protuberances interleaved in the Z-direction.
3. Applicants' Claim 21 claims a web pleating apparatus comprising, *inter alia*, a first series of **non-collinear elongate** spaced protuberances, a second series of **non-collinear elongate** spaced protuberances, and wherein the first and second series of protuberances **interleave** in the Z-direction.
4. Applicants' Claim 25 claims a web pleating apparatus comprising, *inter alia*, a first series of **collectively elongate** spaced protuberances, a second series of **collectively elongate** spaced protuberances, and wherein the first and second series of protuberances **interleave** in the Z-direction.
5. The *Levers* reference is silent with respect to providing elongate-spaced protuberances, converging elongate spaced protuberances, non-collinear elongate spaced protuberances, and collectively elongate spaced protuberances.
6. In fact, the *Levers* references states that, "Essentially, patterning rolls 24, at least one roll of the roll pair have a patterned surface, are adapted to afford a plurality of permanently depressed areas in the substrate." (4:1-4)
7. After contact with the patterning rolls 24, the web is directed to a plasticizer applicator 26 and then drawn together (*pulled*) to form the tobacco smoke filter rod. (5:13-20)

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8. Thus, the patterning rolls 74 of the *Levers* reference are not capable of folding a pleatable web into a generally pleated pattern of machine direction pleats, as required by Applicants.

9. Further, assuming, *arguendo*, that the patterning roll 24 forms the tobacco smoke filter rod directly, one is at a loss to understand how a patterning roll could be considered elongate. As would be known to one of skill in the art, a roll has an aspect ratio of 1, whereas elongate infers an aspect ratio greater than 1.

Due to these considerations, the *Levers* reference fails to teach and every element of Applicants' claimed invention. Further, *Levers* fails to disclose or even suggest Applicants' web pleating apparatus comprising, *inter alia*, first and second elongate spaced protuberances, each converging in the cross-machine direction and interleaving in the Z-direction.

As is known, well settled Federal Circuit case law mandates that a prior art reference anticipates a claim only if the reference discloses, either expressly or inherently, every limitation of the claim. *See Roe v. Dror*, 112 F.3d 473, 42, U.S.P.Q.2d 1550 (Fed.Cir. 1997). Further, anticipation under 35 U.S.C. §102 requires the disclosure in a single piece of prior art of each and every limitation of the claimed invention. *See Apple Computer, Inc. v. Articulate Sys., Inc.*, 234 F.3d 14, 57 U.S.P.Q.2d 1057 (Fed.Cir. 2000) (citing *Electro Med. Sys. S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1052, 32 U.S.P.Q.2d 1017, 1019 (Fed.Cir. 1994)). Further, there is no teaching or suggestion in the *Levers* reference to make Applicants' claimed web pleating apparatus comprising, *inter alia*, first and second series of elongate spaced protuberances converging in the cross-machine direction and interleaving in the Z-direction. Therefore, Applicants respectfully request withdrawal of the Examiner's 35 U.S.C. §102(b) rejection over the *Levers* reference to Claims 1, 14, 21, and 25.

Further, because Claims 2, 4-6, 8, 13, 15-19, 22-23, and 26-27 all depend directly or indirectly from Applicants' independent Claims 1, 14, 21, and/or 25, they contain all their respective limitations. Therefore, for the reasons cited above, Applicants respectfully request withdrawal of the Examiner's 35 U.S.C. §102(b) rejection to dependent Claims 2, 4-6, 8, 13, 15-19, 22-23, and 26-27.

Rejection Under 35 U.S.C. §103

Claims 10-12, 20, and 24 have been rejected under 35 U.S.C. §103(a) over *Levers* in view of Benedict, U.S. Patent No. 2,314,757. Applicants respectfully traverse this rejection. Arguments made previously with respect to the *Levers* reference remain in effect but will not be repeated for the sake of brevity. The Examiner is requested to consider the following arguments with respect to this rejection over Applicants' claims:

1. Applicants' amended Claim 20 now claims a filter comprising, *inter alia*, a pleated web formed by providing a pleatable web, scoring said pleatable web, and **pushably** transporting the

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scored web relative to a first and second series of interleaved converging elongate spaced protuberances.

2. The *Benedict* reference requires **pulling** a paper or other flexible sheet material through the pleating apparatus. (2:9-15)

3. All functions of the pleating apparatus, as disclosed in the *Benedict* reference are coordinated with respect to a motor positioned at the **pullout** end of the machine. For example, the drive shaft 34 of the *Benedict* reference is geared to actuate the scoring rolls at the precise linear travel of the foundation sheet and is driven from a motor position at the pullout end of the machine. (2:28-31)

4. Applicants believe that pushing a web substrate through a pleating apparatus provides the unexpected benefit of reducing the strain in the web substrate due to frictional forces imparted by the machine to the web material. Pulling a web material, as is done in both the *Levers* and *Benedict* references, imparts a high frictional force to the web material that resists motion through the apparatus. This frictional force creates high stress in a web material and leads to plastic deformation or failure. (Specification, p. 10, ll. 3-8)

One way for a patent applicant to rebut a *prima facie* case of obviousness is to make a showing of "unexpected results"; i.e., to show that the claimed invention exhibits some superior property or advantage that a person of ordinary skill in the relevant art would have found surprising or unexpected. See *In re Soni*, 54 F.3d 746, 34 U.S.P.Q.2d 1684 (Fed.Cir. 1995). Any analysis of obviousness of a claimed combination must include consideration of the results achieved by that combination. See *Gillette Co. v. S. C. Johnson & Son, Inc.*, 919 F.2d 720, 16 U.S.P.Q.2d 1923 (Fed.Cir. 1990). An applicant may rebut a *prima facie* case of obviousness with a showing that the claimed invention exhibits some superior property or advantage that a person of ordinary skill of the relevant art would find surprising or unexpected . . . the basic principle behind this rule is straightforward – that which would have been surprising to a person of ordinary skill in a particular art would not have been obvious. See *In re Mayne*, 104 F.3d 1339, 41 U.S.P.Q.2d 1451 (Fed.Cir. 1997).

Because of these considerations, the *Levers* and *Benedict* references do not suggest what Applicants claim as their invention. The *Levers* and *Benedict* references fail to disclose, teach, suggest, or render obvious, either singly or in combination, every recited feature of Applicants' Claim 20. Further, because Claims 10-12 and 24 all depend directly or indirectly from Applicants' unobvious Claims 1 and 21, they contain all of their limitations. For this reason, Applicants submit that any arguments made above concerning the allowability of Claims 1 and 21 are equally applicable to the rejection of Claims 10-12 and 24 under 35 U.S.C. §103(a). Applicants therefore request

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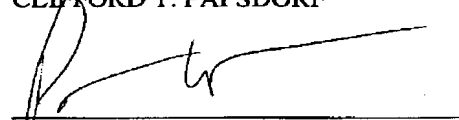
reconsideration and withdrawal of the Examiner's 35 U.S.C. §103(a) rejection to Claims 10-12, 20, and 24.

Conclusion

Based on all the foregoing, it is respectfully submitted that each of Applicants' remaining claims is in condition for allowance and favorable reconsideration is requested.

This response is timely filed pursuant to the provisions of 37 C.F.R. §1.8 and M.P.E.P. §512. If any additional charges are due, the Examiner is authorized to deduct such charges from Deposit Account No. 16-2480 in the name of The Procter & Gamble Company.

Respectfully submitted,
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